

EPA Energy Resources

•**Energy Management Guidebook for Wastewater and Water Utilities**

This explains the Plan-Do-Check-Act process, and ways to improve your energy efficiency.

http://www.epa.gov/waterinfrastructure/pdfs/guidebook_si_energymanagement.pdf

•**Portfolio Manager**

Portfolio Manager is a free online energy management tool that you can use to track & assess your energy consumption.

www.energystar.gov/benchmark

•**Energy Management Workshops**

These workshops promote better utility energy management. Contact your EPA region & visit the site below to find out more.

<http://www.peercenter.net/ewebeditpro/items/O73F21714.pdf>

•**Energy and Water Page**

This page provides basic information about energy use in water and wastewater facilities.

http://www.epa.gov/waterinfrastructure/bettermanagement_energy.html

•**Effective Utility Management Collaborative**

This collaborative that includes EPA describes effective utility management attributes.

www.watereum.org

For more information about sustainability at your utility, please visit:

<http://www.epa.gov/waterinfrastructure/>

Other Energy Resources

•**Clean Water State Revolving Fund (CWSRF)**

EPA's CWSRF funds water quality projects, including energy efficiency measures at wastewater treatment plants.

<http://www.epa.gov/owm/cwfinance/cwsrf/index.htm>

•**Database of State Incentives for Renewables & Efficiency**

This database provides information on state, local, utility and federal incentives fostering energy efficiency and renewable energy.

<http://www.dsireusa.org/>

•**Department of Energy's Industrial Technologies Program:**

•**State Incentives & Resources Database:**

This database provides information on energy-related opportunities and incentives for commercial and industrial facilities.

http://www1.eere.energy.gov/industry/about/state_activities/incentive_search.asp

•**Save Energy Now Program:**

This program offers energy assessments such as 1-day walk-throughs for small facilities.

<http://www1.eere.energy.gov/industry/saveenergynow/assessments.html>



ENERGY EFFICIENCY

at your utility



Why think about energy at your utility?

As you begin the process of renewing your utility's permit, consider what can make your facilities more sustainable over your next permit cycle. Improving energy management at your utility to promote energy efficiency is a great way to enhance your sustainability.

In order to foster energy efficiency at your utility, consider a management system approach that will encourage energy conservation. **The Plan-Do-Check-Act** approach provides a method to help you optimize energy management at your utility.



Why Efficiency?

Energy efficiency can help your utility to save money, preserve your resources, and be more sustainable over the long-term.

Plan-Do-Check-Act Core Questions



PLAN

- What are your energy management goals?
- What is your monthly energy use, and that of similar facilities?
- What are your most energy-intense systems?
- What are priority areas/systems to upgrade?
- What sources of funding are available to you?

Use EPA's Portfolio Manager to track energy use, and get an energy audit for your facility to identify energy improvement opportunities.



DO

- What is your action plan for producing energy improvements? What are your time/cost estimates?
- What operating controls will you utilize (such as training, record-keeping, communication, manuals)?

Perform equipment & system upgrades based on the results of your audit.



CHECK & ACT

- What data do you have, and need?
- How can you measure/communicate progress towards your goals?
- What progress have you made?
- What adjustments are needed?

Gather additional data when needed, and monitor your progress & compliance. Make adjustments as needed, and communicate success.

Potential Energy Improvements

- **Upgrade to more efficient equipment:**
Possibilities include high-efficiency pumps and motors, variable-frequency drives, and high rate diffusers
- **Modify your purchasing strategy:**
Reduce consumption during peak hours: store water at peak times, then pump and treat at off-peak times
- **Reduce flow through your systems:**
Monitor & repair your pipes as needed to reduce infiltration and inflow; educate customers about water efficiency
- **Consider on-site energy generation:**
Options include combined heat & power, solar cells, fuel cells, & wind turbines

Why Audit?

Energy audits demonstrate your utility's patterns of energy consumption & help you make informed energy decisions. They identify actions you can take to improve energy efficiency & yield financial savings. Your municipality or your electricity provider may offer on-site audits or online auditing tools.

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